U.S. DEPARTMENT OF COMMERCE
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PB-260 194

RECOMMENDATIONS OF THE POTOMAC RIVER ENFORCEMENT CONFERENCE, MAY 8, 1969

FEDERAL WATER POLLUTION CONTROL ADMINISTRATION
CHARLOTTESVILLE, VIRGINIA

1969

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PB 260 194

U.S. DEPARTMENT OF THE INTERIOR

FEDERAL WATER POLLUTION

CONTROL ADMINISTRATION

MIDDLE ATLANTIC REGION

PENNSYLVANIA

MARYLAND

DISTRICT OF COLUMBIA

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U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

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BIBLIOGRAPHIC DATA SHEET	1. Report No.	2.	3. Recipient's Accession No. PB-260 194
4. Title and Subtitle Recommendations of the Potomac River Enforcement Conference, May 8, 1969.			5. Report Date 1969 6.
7. Author(s)			8. Performing Organization Rept. No.
9. Performing Organization Name and Address Federal Water Pollution Control Administration, Charlottesville, Va., Middle Atlantic Region.			10. Project/Task/Work Unit No. 11. Contract/Grant No.
12. Sponsoring Organization Name and Address			13. Type of Report & Period Covered 14.

15. Supplementary Notes Summary of Conference (Third Session). Pollution of the Interstate Waters of the Potomac River and Its Tributaries, Washington Metropolitan Area (District of Columbia-Maryland-Virginia), April 2, 3, and 4, and May 8, 1969.

16. Abstracts

Despite substantial investments in pollution abatement facilities, the Potomac continues to be polluted by sewage discharges from combined sewage, nutrients, and sediments. Discharges and sediments result in water quality degradation as evidenced by low dissolved oxygen, excessive algal growths, sedimentation, and high concentrations of fecal bacteria. The conditions restrict established water uses, create hazardous health conditions, and are incompatible with Federal water quality standards. A conference on pollution of interstate waters of the Potomac River was held to review the existing situation and progress which has been made, to determine a basis for future action, and to provide an opportunity for remedial action which may be indicated under state and local law.

17. Key Words and Document Analysis. 17a. Descriptors

17b. Identifiers/Open-Ended Terms

Potomac River
Washington, D. C.
Maryland
Virginia
*Water pollution
*Water pollution abatement
Estuaries
Combined sewers
Sewage
*Rivers

17c. COSATI Field/Group 13B

18. Availability Statement	19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 17
	20. Security Class (This Page UNCLASSIFIED	22. Price $3.50-3.00

FORM NTIS-35 (REV. 10-73) ENDORSED BY ANSI AND UNESCO. THIS FORM MAY BE REPRODUCED USCOMM-DC 8265-P74

E. A. Kaufer

Recommendations of the

Potomac River Enforcement Conference

May 8, 1969

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SUMMARY OF CONFERENCE
(THIRD SESSION)
POLLUTION OF THE INTERSTATE WATERS
OF THE
POTOMAC RIVER AND ITS TRIBUTARIES
WASHINGTON METROPOLITAN AREA
(DISTRICT OF COLUMBIA-MARYLAND-VIRGINIA)

April 2, 3, and 4, and May 8, 1969

The third session of the conference in the matter of pollution of the interstate waters of the Potomac River and its tributaries in the Washington Metropolitan Area (District of Columbia-Maryland-Virginia) was held on April 2, 3, and 4, 1969, at the Statler Hilton Hotel and May 8, 1969, at the Washington Hilton Hotel, Washington, D. C., under the provisions of section 10 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et seq.). The first session of the conference was held on August 22, 1957, at Charlottesville, Virginia, and the second session was held on February 13, 1958, at Washington, D. C.

The third session of the conference was initiated by the Secretary of the Interior under procedures described in section 10 of the Federal Act.

The area of the Potomac River covered by the conference was the 26 mile reach from Little Falls to Hallowing Point.

The following conferees representing the water pollution control agencies of the District of Columbia, Maryland, and Virginia, the Interstate Commission on the Potomac River Basin, and the U. S. Department of the Interior participated in the conference:

DISTRICT OF COLUMBIA

Malcolm Hope	Associate Director, Office of Environmental Health District of Columbia Department of Public Health Washington, D. C.
Norman Jackson	Director, District of Columbia Department of Sanitary Engineering Washington, D. C.

MARYLAND

James B. Coulter	Assistant Commissioner Environmental Health Services Maryland State Department of Health Baltimore, Maryland
Paul W. McKee	Director, Maryland State Department of Water Resources Annapolis, Maryland
Thomas D. McKewen	Director, Bureau of Resource Protection Maryland State Department of Health Baltimore, Maryland

VIRGINIA

A. H. Paessler	Executive Secretary Virginia State Water Control Board Richmond, Virginia
W. H. Singleton	Member, Virginia State Water Control Board Richmond, Virginia

INTERSTATE AGENCY

Carl J. Johnson	Executive Director Interstate Commission on the Potomac River Basin Washington, D. C.

U. S. DEPARTMENT OF THE INTERIOR

Carl L. Klein, Chairman	Assistant Secretary Water Quality and Research U. S. Department of the Interior Washington, D. C.
Eugene T. Jensen	Director, Middle Atlantic Region Federal Water Pollution Control Administration U. S. Department of the Interior Charlottesville, Virginia
Murray Stein	Assistant Commissioner-Enforcement Federal Water Pollution Control Administration U. S. Department of the Interior Washington, D. C.

The Chairman of the conference pointed out that:

1. Under the Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et seq.) pollution of interstate or navigable waters which endangers the health or welfare of any persons is subject to abatement under procedures described in section 10 of the Federal Act.

2. The first step of these procedures is the calling of a conference.

3. The purpose of the conference is to bring together representatives of the State and interstate agencies, and the U. S. Department of the Interior to review the existing situation, the progress which has been made, to lay a basis for future action by all parties concerned, and to give the States, localities, and industries an opportunity to take any remedial action which may be indicated under State and local law.

The conference was held on April 2, 3, and 4, 1969, with the conferees also meeting in executive session on April 4, 1969. The conference was then recessed and reconvened on May 8, 1969.

On April 4, 1969, the conferees unanimously agreed to the following:

1. The water pollution control agencies in the District of Columbia and political subdivisions within Maryland and Virginia, have made substantial investments in facilities for the abatement of pollution of the interstate waters of the Potomac River and the Washington metropolitan area;

2. In spite of these investments, the Potomac continues to be polluted by discharges of sewage from combined sewers and inadequately treated sewage, nutrients, and sediments. It is to be noted, however, because of improved sewage treatment, the organic load has been reduced 41 percent since 1947.

3. Discharges and sediments result in water quality degradation as evidenced by low dissolved oxygen, excessive algal growths, sedimentation, and high concentrations of fecal bacteria. These conditions restrict established water uses, create conditions hazardous to health, and are incompatible with the water quality standards and criteria of the District of Columbia, the State of Maryland and the Commonwealth of Virginia, as adopted as Federal water quality standards and criteria, therein.

4. Effective waste treatment in the metropolitan area is complicated by the estuarine characteristics of the Potomac, by combined sewers within the District of Columbia and Alexandria; heavy silt loads, and other pollutants attributed to run-off.

5. Present problems will be greatly magnified in the future by projected population growth for the metropolitan area unless corrective measures are taken.

6. The difficulty of pollution abatement efforts for the upper estuary will be greatly increased unless effective intensified efforts are undertaken in the Upper Basin.

To enhance the quality and value of the water resources of the Potomac, and to assure adequate sewerage service for the metro area, the conferees recommend the following approaches:

1. The continuous application of the best available waste cleansing technology to provide the highest water quality which under no circumstances will be less than the approved water quality standards.

2. Effective coordination of all metro community area waste treatment and sewerage programs to achieve maximum economies of scale.

3. Maximum application of practical measures for control of sediments from both the metropolitan area and the upper watershed.

4. Effective treatment of waste from Federal establishments, as well as wastes from industries, oil handling facilities, and watercraft.

5. Further study of the Potomac estuary to provide information needed for meeting problems associated with an expanded population and for the better understanding of the estuarine problem. These studies should indicate the possibilities for additional water supply and for low flow augmentation.

6. That the Federal, State, and local governments continue their efforts to define and establish appropriate institutional arrangements; such as the Potomac River Basin Compact as proposed by the Potomac River Basin Advisory Committee.

To develop specific engineering and administration implementation procedures, the conferees will recess for approximately two weeks to allow time for technical evaluation of the extensive data and suggestions developed by the Conference.

On May 8, 1969, the conferees met in an open session and an executive session. In the light of conference discussions, the conferees depending upon the assurances of the Federal Water Pollution Control Administration that treatment resulting in the limitations of loading to the levels stated below will enhance the quality and value of the water resources of the Potomac River and tributaries in the Washington Metropolitan Area, will meet State and Federal water quality standards, and will abate water pollution, made the following recommendations:

1. Based on the existing points of discharge, waste treatment facilities now discharging to the Potomac River between river mile 106

and river mile 91 shall be improved to achieve removal of BOD_5, total phosphorus, and total nitrogen so as to limit loadings as follows:

Facility	lbs/day BOD_5	Total P	Total N
Pentagon	300	20	145
Arlington	1,300	60	650
District of Columbia	12,700	560	6,130
Alexandria	1,300	60	630
Fairfax Westgate	900	40	445
	16,500	740	8,000

Additional loading and additional points of discharge will be acceptable only if the resultant water quality will be equal to, or better than, that which would result from adherence to the above load limits at the existing points of discharge. Flow augmentation from upstream reservoirs could alter the above load allocations.

Construction schedules for the foregoing plants are as follows:

District of Columbia Blue Plains:

Treatment Process	Start Design	Ready for Bid	Start Construction	Finish Construction
Primary & Excess Flow	5/1/69	3/1/70	7/1/70	7/1/72
Secondary (90% BOD removal)	12/1/69	12/1/70	4/1/71	4/1/74
Tertiary	12/1/69	7/1/71	11/1/71	1975-1977

Facility	Preliminary Completed	Final Plans	Commence Construction	Operational
Pentagon STP	4/1/70	4/1/71	8/1/71	8/1/73
Arlington, Va.	3/1/70	3/1/71	7/1/71	7/1/73
Alexandria, Va.	3/1/70	3/1/71	7/1/71	7/1/73
Fairfax Westgate	3/1/70	3/1/71	7/1/71	7/1/73

The treatment plants listed below shall provide 96 percent BOD_5 removal, 96 percent phosphorus removal, and 85 percent total nitrogen removal, so long as they discharge their effluents to tributaries or embayments of the Potomac River.

Construction schedules are as follows:

Facility	Preliminary Completed	Final Plans	Commence Construction	Operational
Charles Co., Md. Mattawoman Creek	3/1/70	3/1/71	7/1/71	7/1/73
Fairfax County Dogue Creek	1/1/70	10/1/70	2/1/71	8/1/72
Little Hunting Creek	1/1/70	10/1/70	2/1/71	8/1/72
Accotink-Pohick	3/1/70	3/1/71	7/1/71	7/1/73
Andrews AFB* STP #1	3/1/70	3/1/71	7/1/71	7/1/73
STP #4	3/1/70	3/1/71	7/1/71	1/1/73
Piscataway	3/1/70	3/1/71	7/1/71	1/1/73
Fort Belvoir STP #1	3/1/70	3/1/71	7/1/71	1/1/73
STP #2	4/1/70	4/1/71	8/1/71	8/1/73
Naval Comm. Sta.*	1/1/70	10/1/70	2/1/71	3/1/72

* These installations should, as an alternative, explore the possibility of connecting to other sewage systems serving their area.

It is recognized that the design and construction of facilities of this complexity may result in many technical and financial problems which may require modification of the above dates. These problems will be considered at the periodic progress meetings.

2. Continuous and effective effluent disinfection shall be practiced at all sewage treatment plants to meet State and Federal water quality standards.

3. The following industries shall comply with orders of the Maryland Department of Water Resources for completion of treatment facilities by January 1, 1970, to meet State and Federal water quality standards:

Industry	Location	Receiving Waters
Inland Materials Sand & Gravel	Clinton	Tinkers Branch
Potomac Sand & Gravel Corp.	Greenway Flats	Potomac River
Silver Hill Sand & Gravel Co.	Silver Hill	Henson Creek
A.H. Smith Sand & Gravel	Branchville	Indian Creek
Devlin Lumber & Supply Co.	Rockville	Crabs Branch
Metropolitan Fuels Co.	Bethesda	Little Falls Branch
Mineral Pigments Corp.	Muirkirk	Indian Creek
Arundel Supply Co.	District Heights	Southwest Branch
Banning Plymouth, Inc.	Hyattsville	Northeast Branch

The District of Columbia, in cooperation with the FWPCA and the Potomac Electric Power Company, will evaluate the effects of heated waters on the Potomac and Anacostia Rivers and report results together with recommendations for any required corrective actions to the conferees by January 1, 1970.

4. The Federal Water Pollution Control Administration, in cooperation with State, interstate, and local agencies, shall initiate detailed analyses of alternate methods of meeting future water quality requirements and sewerage needs in the Metropolitan Area. These analyses shall consider advances in waste treatment technology; space limitations which prevent unlimited expansion of the District of Columbia and other water pollution control plants; fail-safe sewer systems to prevent raw sewage discharges; possibilities for load transfers to other sewage treatment plants; opportunities for use of reclaimed water; sewers and alternate treatment plants and discharge points for treatment facilities and sludge disposal methods needed for the expanding Washington population. The study shall be completed by January 1, 1971, and a report and recommendations submitted to the conferees.

5. The District of Columbia shall complete its Project C* by 1971. The State of Maryland shall take action to control sewage overflows from sources in Maryland. Alexandria shall complete plans by December 31, 1971, for elimination of pollution from combined sewer overflows.

The conferees recognize that desired water quality of the Potomac cannot be assured on a year-round basis until the discharges from combined

* A large intercepter sewer system

sewers are controlled. This is a very complex problem which probably will require the expenditure of considerable sums to correct. The conferees, at six-month intervals, shall review plans for elimination of pollution from this source and establish a timetable for the control of pollution from storm water overflows.

6. The planned advanced waste treatment plant at Piscataway shall be constructed as soon as possible.

7. The appropriate State, county, and municipal agencies shall take action to prevent and correct pollution from septic tanks and raw discharges in the counties of the conference area and report progress to the conferees at six-month intervals.

8. The appropriate regulatory agencies in the conference area and the District of Columbia shall adopt and enforce effective ordinances for the control of soil erosion. The Interstate Commission on the Potomac River Basin is requested to continue its active program for the control of soil erosion.

9. The Secretary of the Interior is asked to request the Secretary of the Army to have the Corps of Engineers (a) install and maintain devices for the purpose of preventing debris from washing into the Estuary, and (b) report to the conferees concerning the adequacy of its debris sweeping operations.

10. The FWPCA shall establish a committee comprised of representatives of the Federal and State regulatory agencies to: (a) conduct a

joint survey of oil storage areas, terminals, and oil pollution from vessels and (b) recommend to the conferees by November 1970 actions required to minize the possibility of pollution by oil and other petroleum products.

11. The National Park Service is to provide areawide leadership for a program to keep the shores of the Potomac and its tributaries free of debris and litter. Elements of this program should include

--a continuing program for the clean-up of shoreline debris and litter:

--a review of State and local park agencies' operating procedures with a view to modifications which will minimize the amount of debris and litter which may enter the Potomac and its tributaries;

--a public information program to obtain maximum citizen participation;

--appropriate coordination with the Corps of Engineers.

The National Park Service is requested to report to the conferees on the established and continuing progress of the areawide program at each schedule public progress meeting.

12. The Federal Water Pollution Control Administration, in cooperation with the States of Maryland, Virginia, the District of Columbia, and the Interstate Commission on the Potomac River Basin, shall coordinate surveillance programs including stream monitoring, effectiveness of waste treatment plant operations and of sediment control programs.

13. The States should develop uniform regulations for controlling pollution from watercraft unless enactment of Federal law makes this unnecessary.

14. The Interstate Commission on the Potomac River Basin, the States of Maryland, Virginia, Pennsylvania, and West Virginia, the District of Columbia, and the Federal Water Pollution Control Administration, shall make a joint study of the entire Potomac Basin to determine what controls will be required to protect the River and the Estuary, and to secure compliance with State and Federal water quality standards. The conferees emphasize that protection of water quality in River and Estuary requires the continuing cooperation of all Basin communities, landowners, and official agencies. The Interstate Commission on the Potomac River Basin is requested to call a meeting to consider the entire Basin water quality problem with specific emphasis on problems of nutrients, bacteria, sediments, and pesticides.

15. Public progress meetings shall be held in May and November of each year.